

CLAIMS

What is claimed is:

1. A method of assembling a lead wire with a filament, comprising the steps of:
providing at least one spur near the end of the lead wire, wherein the at least one spur
5 protrudes laterally beyond a perimeter of the lead wire;
providing a spud coil at an end of the filament; and
screwing the end of the lead wire into the spud coil, utilizing the at least one spur as a
screw thread.
2. The method of claim 1, further comprising the step of:
10 making an outside diameter of the lead wire, exclusive of the at least one spur,
approximately equal to an inside diameter of the spud coil.
3. The method of claim 1, further comprising the steps of:
providing a single spur near the end of the lead wire; and
providing a longitudinally directed point at the end of the lead wire for funneling the lead
15 wire into the spud coil.
4. The method of claim 3, further comprising the step of:
forming the single spur and the point in a single operation by cutting the lead wire at an
acute angle versus a longitudinal axis of the lead wire.
5. The method of claim 4, further comprising the step of:
20 cutting the lead wire with a cutting blade that has a blade angle in the range of about 60
degrees to about 120 degrees; wherein:
the acute angle is in the range of about 45 degrees to about 75 degrees.
6. The method of claim 5, further comprising the step of:
cutting the lead wire with a blunt cutting blade.
- 25 7. A spurred lead wire for use as a component part of a light source, the spurred lead wire
comprising:
a cut end on a lead wire; and
at least one spur near the cut end, wherein the at least one spur protrudes laterally beyond
30 a perimeter of the lead wire.
8. The spurred lead wire of claim 7, wherein the spurred lead wire is used for assembling

with a filament having a spud coil at an end of the filament, and the spurred lead wire further comprises:

an outside diameter of the lead wire, exclusive of the at least one spur, such that the spurred lead wire outside diameter is approximately equal to an inside diameter of the spud coil.

5 9. The spurred lead wire of claim 7, wherein:

the spurred lead wire is part of a foliated lead for sealing in vitreous material, the foliated lead comprising:

a sealing foil with at least one spurred lead wire extending therefrom; and

10 a one of the cut ends with at least one spur being near an end of the at least one spurred lead wire that is distal from the sealing foil.

10. The spurred lead wire of claim 9, wherein:

at least one cut end has a single spur and a longitudinally directed point at the end of the cut end.

11. The spurred lead wire of claim 7, further comprising:

15 a single spur near the end of the lead wire; and

a longitudinally directed point at the end of the spurred lead wire for funneling the lead wire into material handling devices and into other light source components.

12. The spurred lead wire of claim 11, wherein:

the single spur and the point are at opposed ends of the cut end; and

20 the cut end is cut at an acute angle versus a longitudinal axis of the lead wire.

13. The spurred lead wire of claim 12, wherein:

the acute angle is in the range of about 45 degrees to about 75 degrees.

14. The spurred lead wire of claim 12, wherein:

25 two sides of the cut end form a vertex having an angle in the range of about 60 degrees to about 120 degrees.

15. A filament assembly for incandescent light sources, the filament assembly comprising:

a filament having a first spud coil at a first end and a second spud coil at a second end;

30 a first lead wire having an inner cut end that is screwed into the first spud coil and a second lead wire having an inner cut end that is screwed into the second spud coil; and

at least one spur near the end of the first lead wire's inner cut end, and at least one spur near the end of the second lead wire's inner cut end, wherein each of the spurs protrudes laterally beyond a perimeter of the respective first and second lead wires and engages with turns of the respective first and second spud coils.

5 16. The filament assembly of claim 15, wherein:

the filament comprises a wire; and

the first and second spud coils are helical coils of the wire.

17. The filament assembly of claim 16, further comprising:

an incandescent portion of the filament;

10 a first stretched-out portion of the filament between the first spud coil and the incandescent portion; and

a second stretched-out portion of the filament between the second spud coil and the incandescent portion, wherein:

the first and second stretched-out portions comprise substantially uncoiled wire.

15 18. The filament assembly of claim 17, wherein:

the incandescent portion comprises a helical coil with a pitch approximately equal to the pitches of the first and second spud coils.

19. The filament assembly of claim 18, wherein:

the incandescent portion is coiled a second time to form a coiled coil.

20 20. The filament assembly of claim 15, wherein:

the first lead wire's inner cut end comprises a single spur near the end of the first lead wire's inner cut end, and a longitudinally directed point at the end of the first lead wire's inner cut end; and

25 the second lead wire's inner cut end comprises a single spur near the end of the second lead wire's inner cut end, and a longitudinally directed point at the end of the second lead wire's inner cut end.

21. The filament assembly of claim 15, wherein:

the first lead wire is a first foliated lead comprising a sealing foil bookended by an inner lead wire outwardly ending in the first lead wire's inner cut end, and an outer lead wire; and

30 the second lead wire is a second foliated lead comprising a sealing foil bookended by an inner lead wire outwardly ending in the second lead wire's inner cut end, and an outer lead wire.

22. The filament assembly of claim 15, further comprising:

an outer cut end of the first lead wire and an outer cut end of the second lead wire

wherein:

each of the first lead wire's and second lead wire's outer cut ends has at least one spur

5 near the end of the outer cut end.

23. The filament assembly of claim 22, wherein:

the first lead wire is a foliated lead comprising a sealing foil bookended by an inner lead wire outwardly ending in the first lead wire's inner cut end, and an outer lead wire outwardly ending in the first lead wire's outer cut end; and

10 the second lead wire is a foliated lead comprising a sealing foil bookended by an inner lead wire outwardly ending in the second lead wire's inner cut end, and an outer lead wire outwardly ending in the second lead wire's outer cut end.